

CCA GCA ACC AAT GAT GCC CGT T-TAMRA-3'

CA GCA ACC AAT GAT GCC CGT T-TAMRA-3'

CCA GCA AGC ACT GAT GCC TGT T-TAMRA-3'

CA GCA AGC ACT GAT GCC TGT T-TAMRA-3'

Fig. 1A

Fluorescent Dyes		
	Absorbance Maxima	Emission Maxima
Fluorescein	494nm	525nm
Tetrachloro fluorescein	521nm	536nm
TAMRA	565nm	580nm

Fig. 1B

Cleaved Fragments:

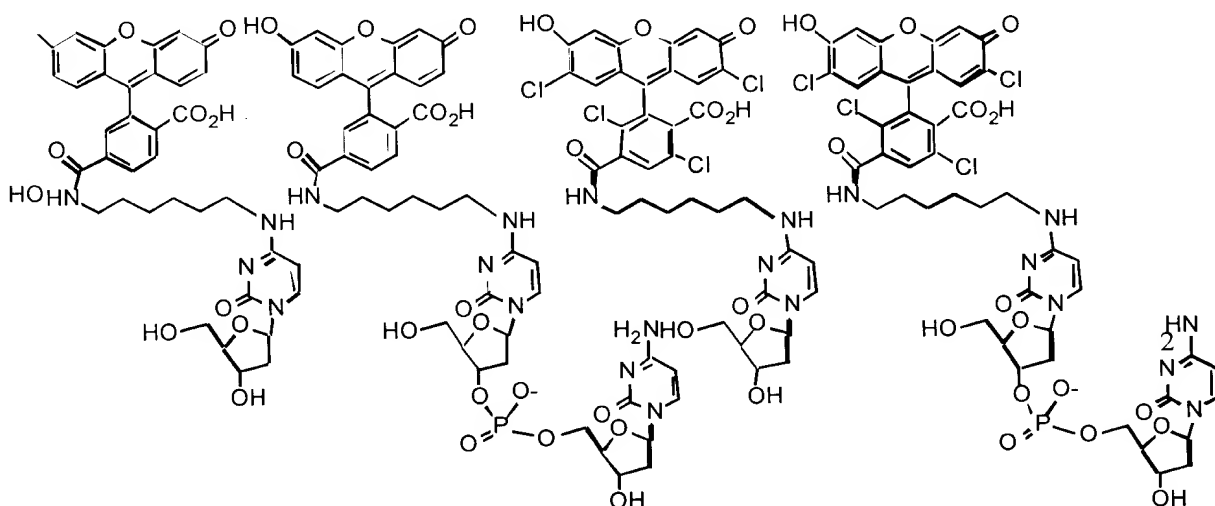


Fig. 1C

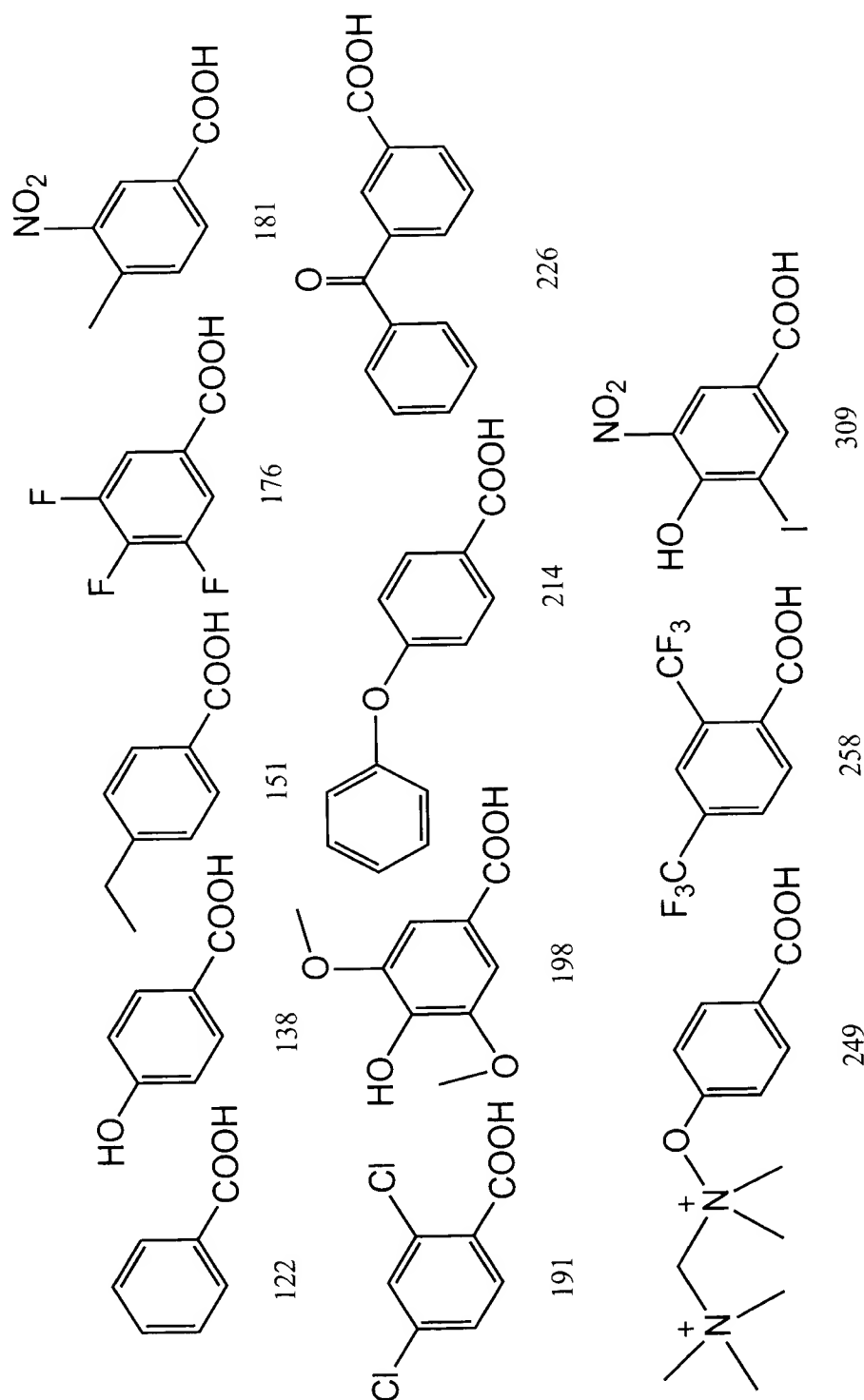


Fig. 2

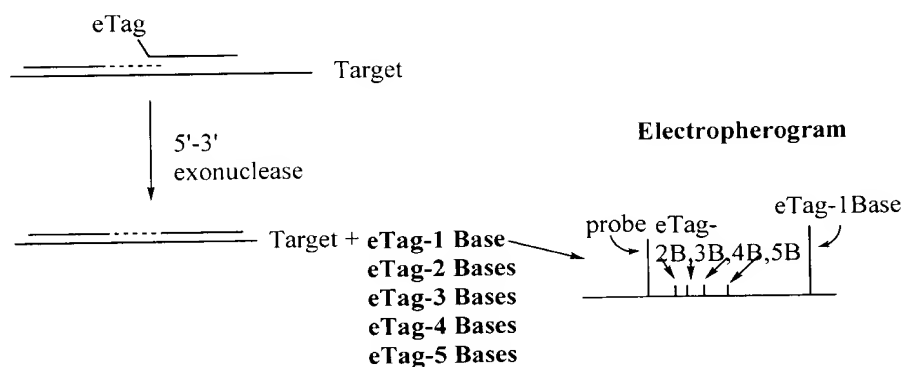


Fig. 3A

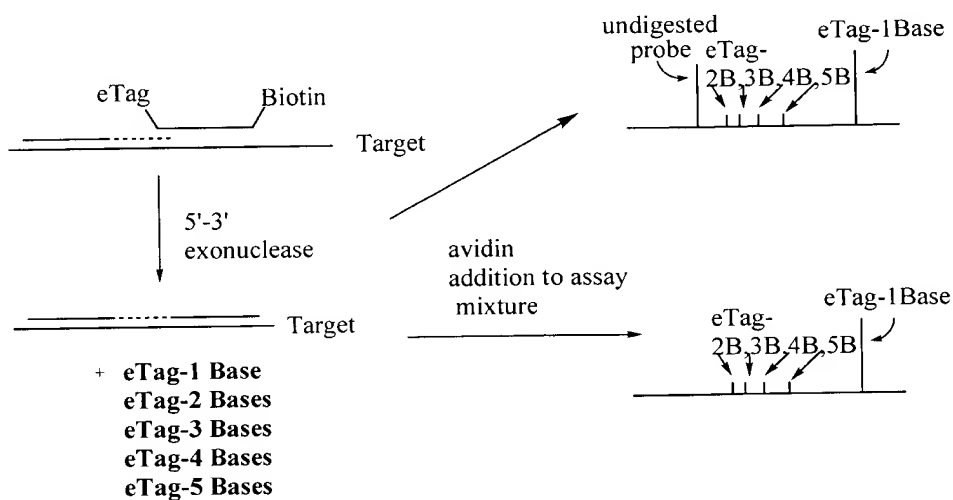


Fig. 3B

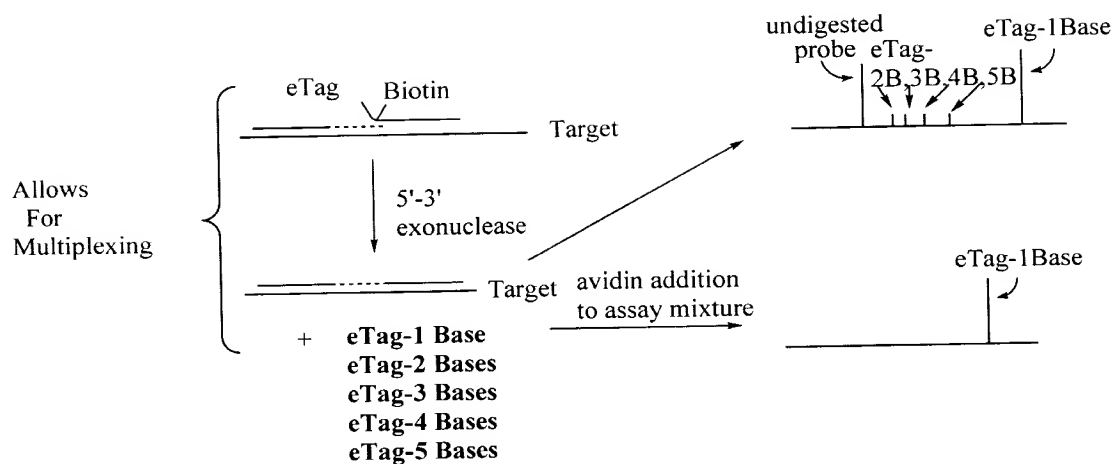


Fig. 3C

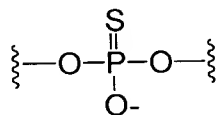


Fig. 3D

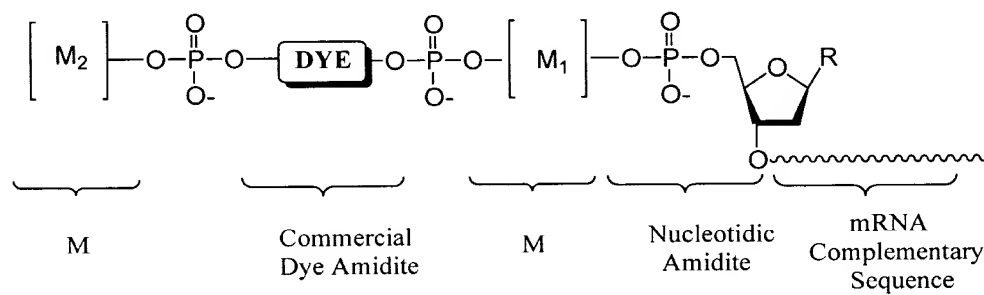


Fig. 4

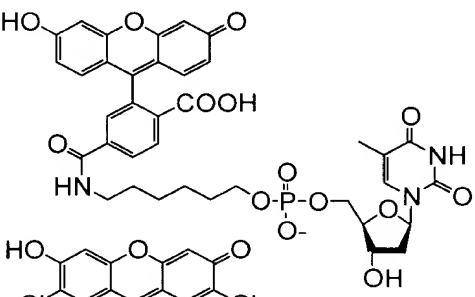
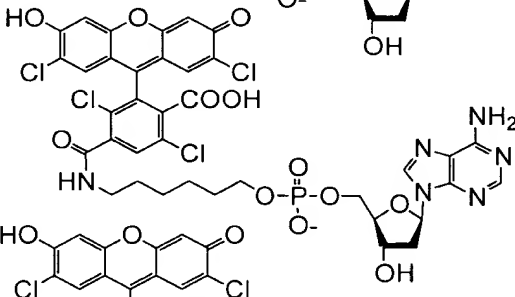
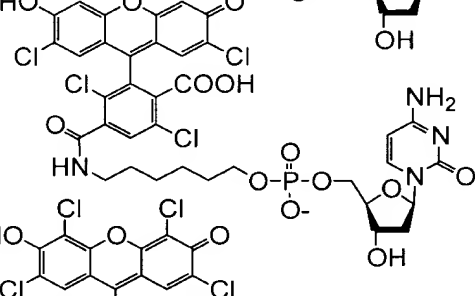
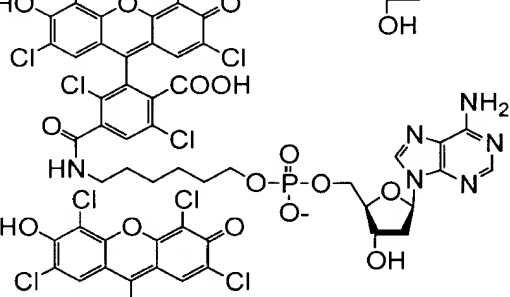
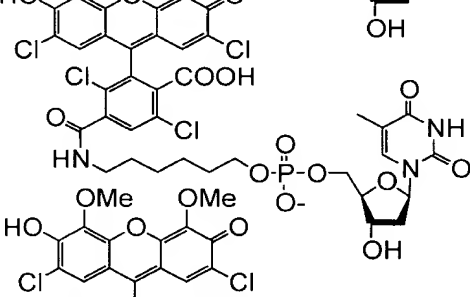
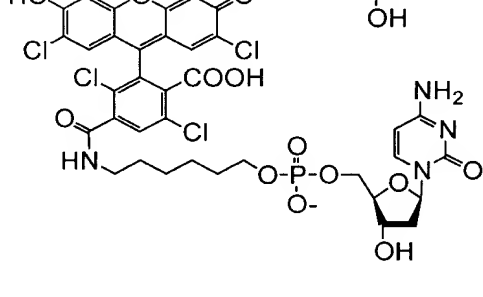
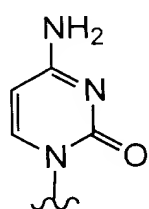
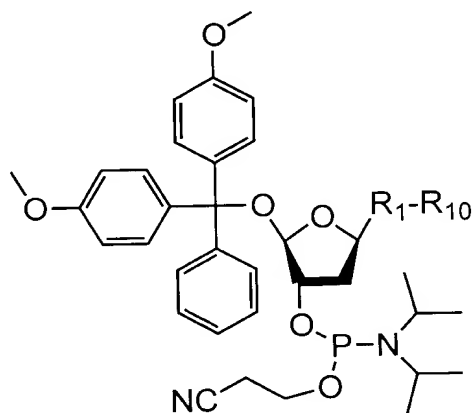
<u>e-tag Reporter</u>	<u>Elution Time on CE, min</u>	<u>Mass</u>
	6.4	778
	7.1	925
	7.3	901
	7.7	994
	8.0	985
	9.25	961

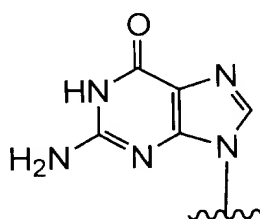
Fig. 5

e-tag Reporter	Charge	Elution Time, min
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3\text{C}_3\text{C}_3\text{C}_3\text{C}_3\text{---} \text{dC} \\ \\ \text{O}^- \end{array}$	-8	12.1*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{---} \text{dC} \\ \\ \text{O}^- \end{array}$	-9	12.7
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{---} \text{dC} \\ \\ \text{O}^- \end{array}$	-8	12.8
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{---} \text{dC} \\ \\ \text{O}^- \end{array}$	-7	13.1
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3\text{C}_3\text{C}_9\text{---} \text{dC} \\ \\ \text{O}^- \end{array}$	-6	13.0
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6\text{C}_6\text{C}_6\text{---} \text{dC} \\ \\ \text{O}^- \end{array}$	-6	13.4
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3\text{C}_3\text{---} \text{dC} \\ \\ \text{O}^- \end{array}$	-5	12.8*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3\text{C}_9\text{---} \text{dC} \\ \\ \text{O}^- \end{array}$	-5	13.2*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_9\text{C}_9\text{---} \text{dC} \\ \\ \text{O}^- \end{array}$	-5	14.8
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TTT} \text{dC} \\ \\ \text{O}^- \end{array}$	-6	17.3
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TT} \text{dC} \\ \\ \text{O}^- \end{array}$	-5	17.0
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_9\text{---} \text{dT} \\ \\ \text{O}^- \end{array}$	-4	15.2*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TdC} \\ \\ \text{O}^- \end{array}$	-4	16.5

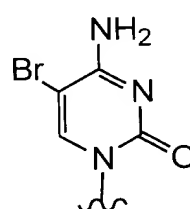
Fig. 6



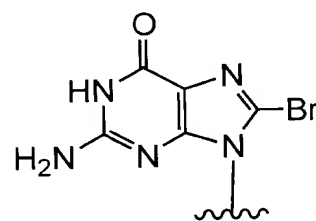
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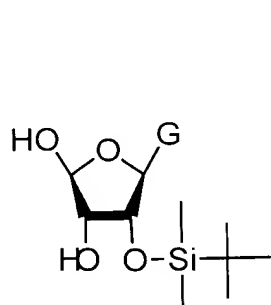
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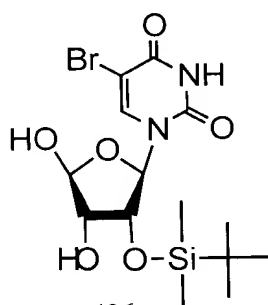
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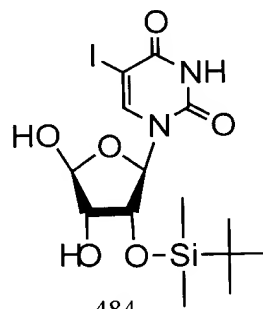
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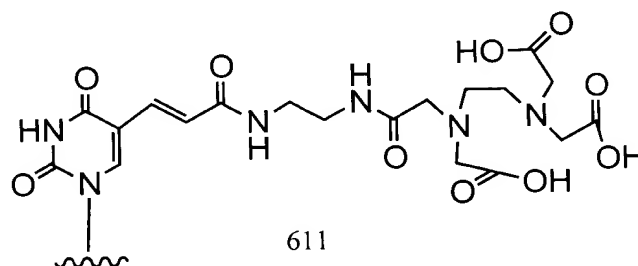
396



436



484



611

Fig. 7

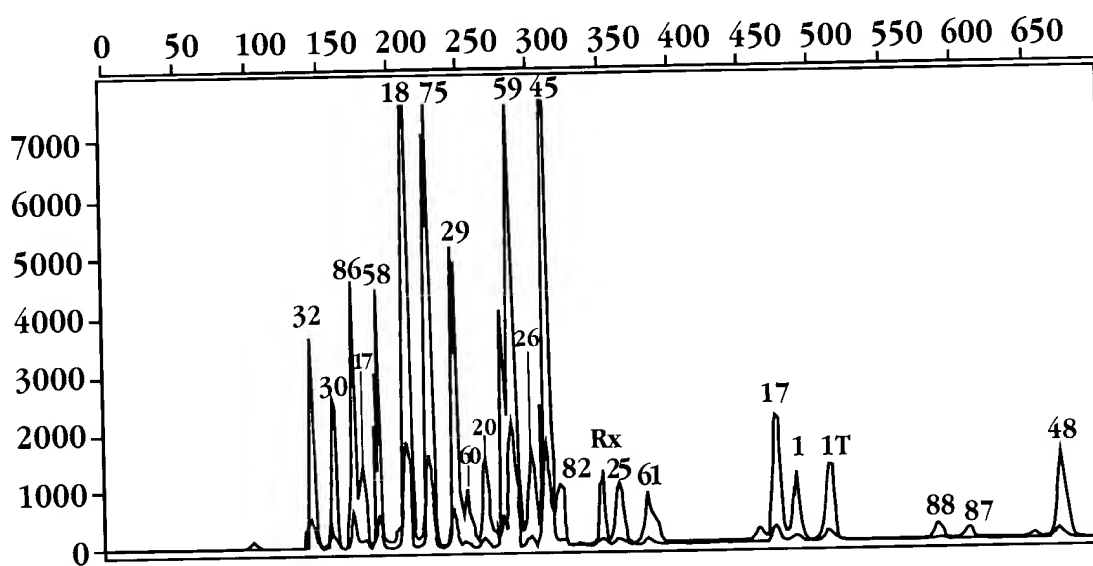
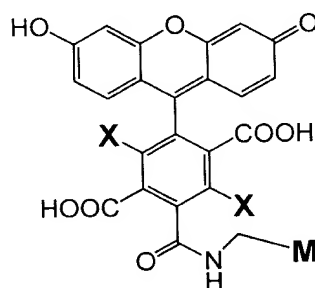
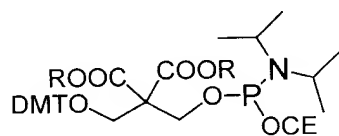


Fig. 8



M = mobility modifier

X = halogen

Fig. 9

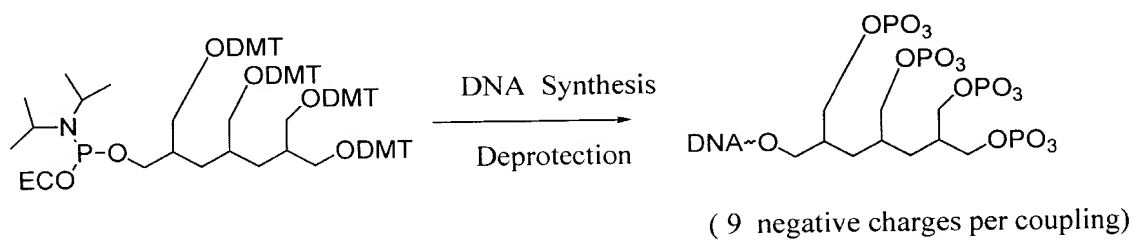


Fig. 10

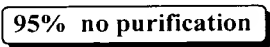


Fig. 11

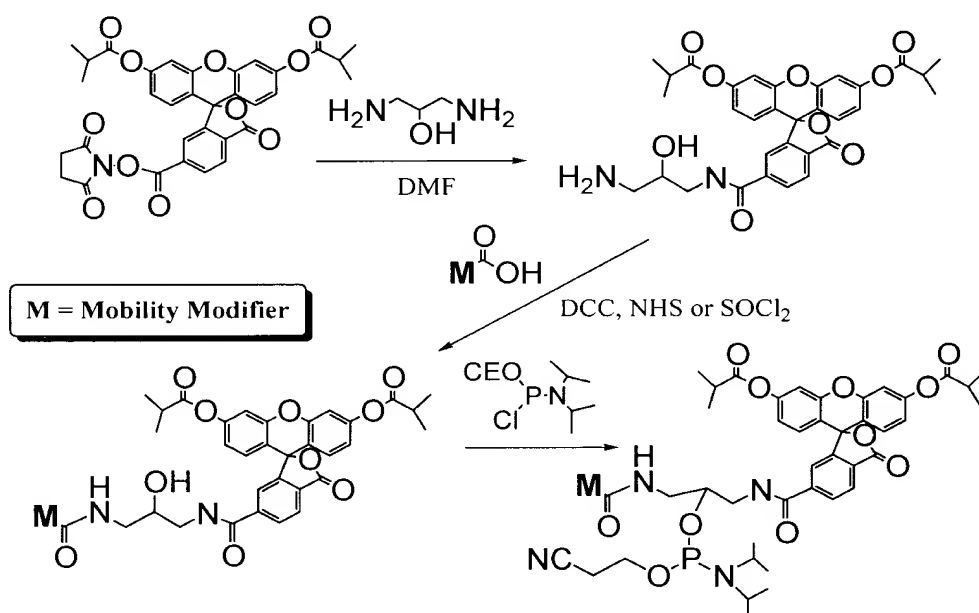


Fig. 12

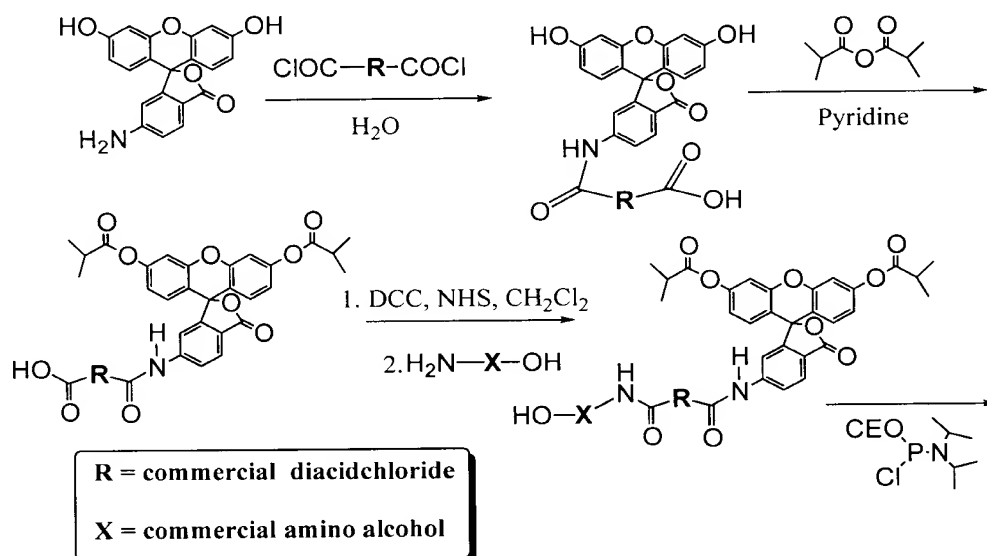


Fig. 13

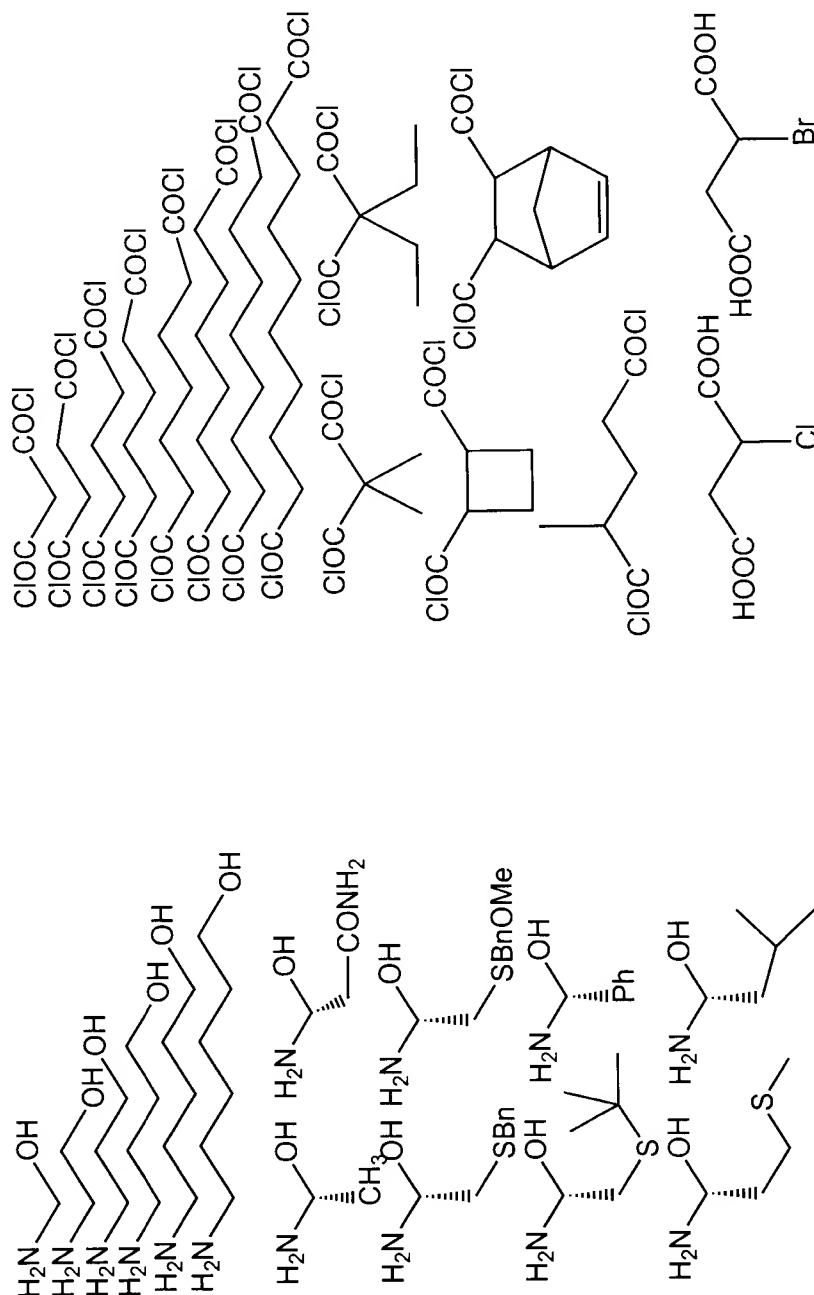


Fig. 14

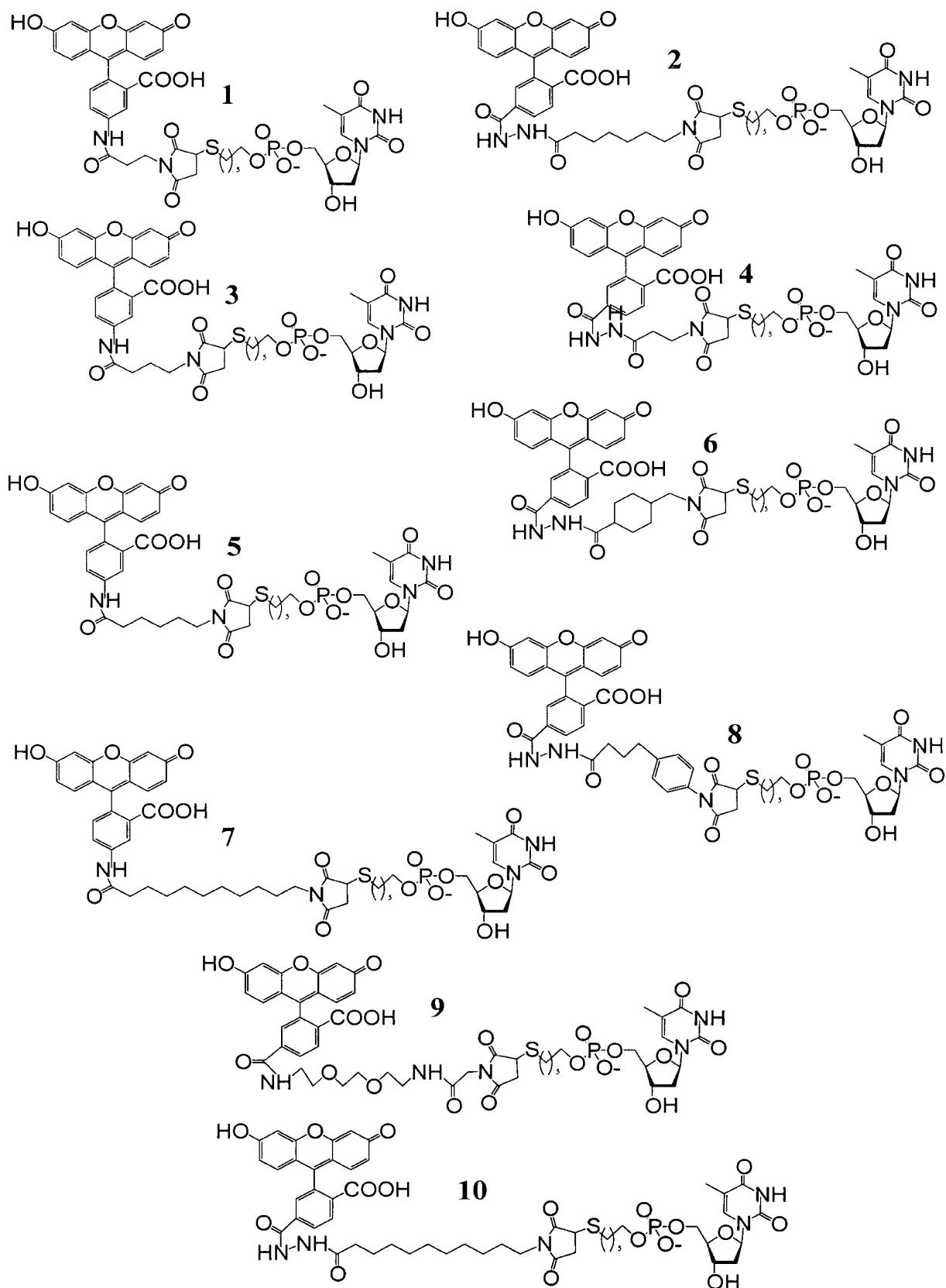


Fig. 15

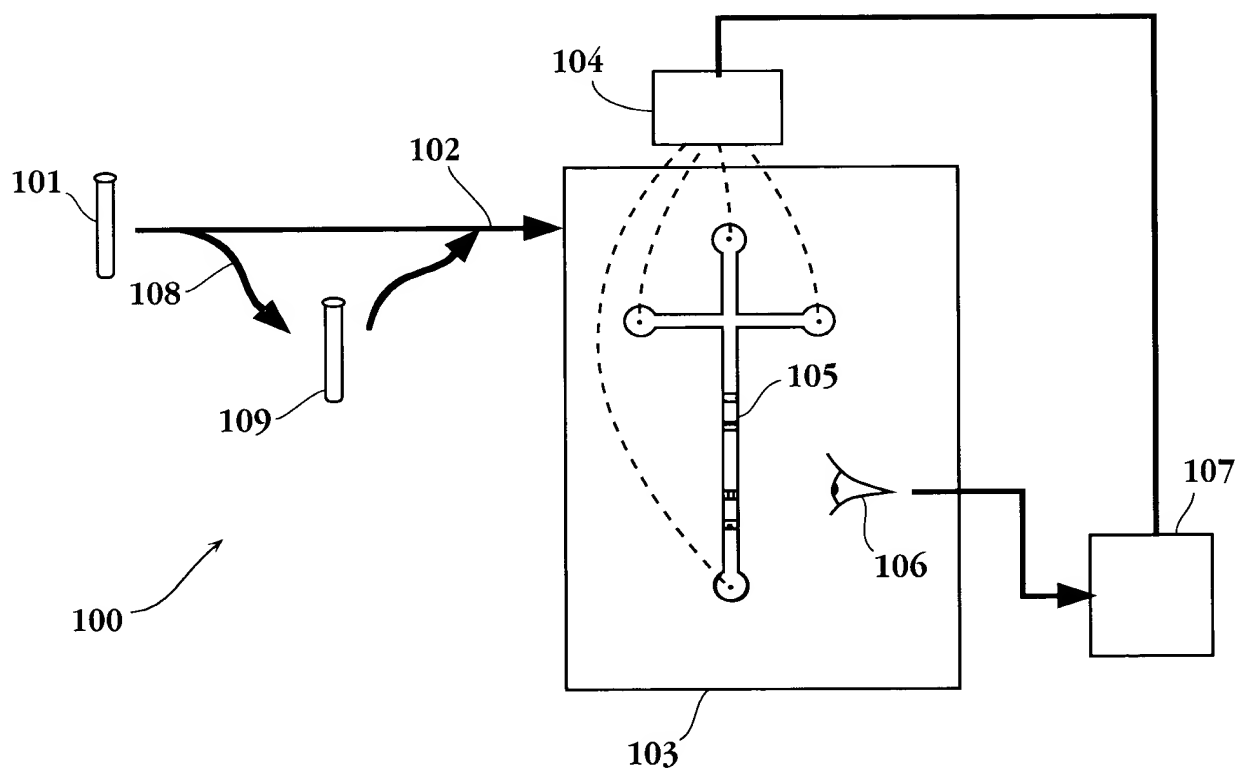
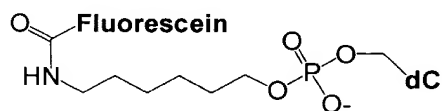
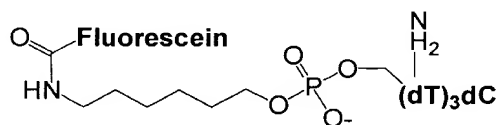


Fig. 16

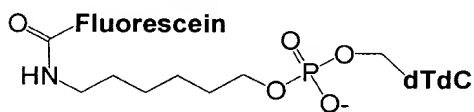
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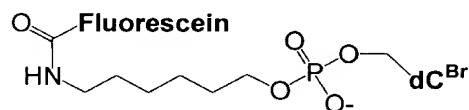
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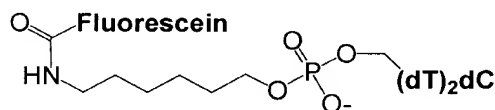
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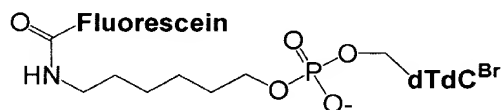
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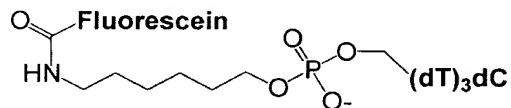
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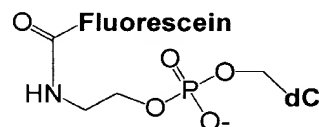
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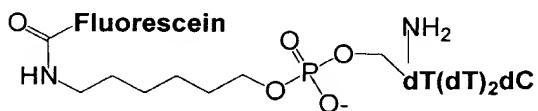
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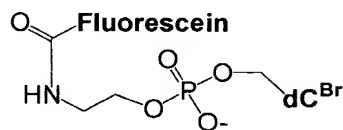
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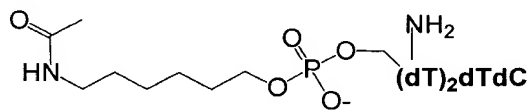
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ACLA011



ACLA006



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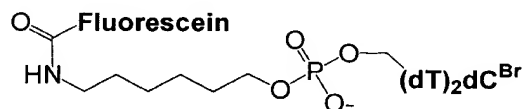


Fig. 17A

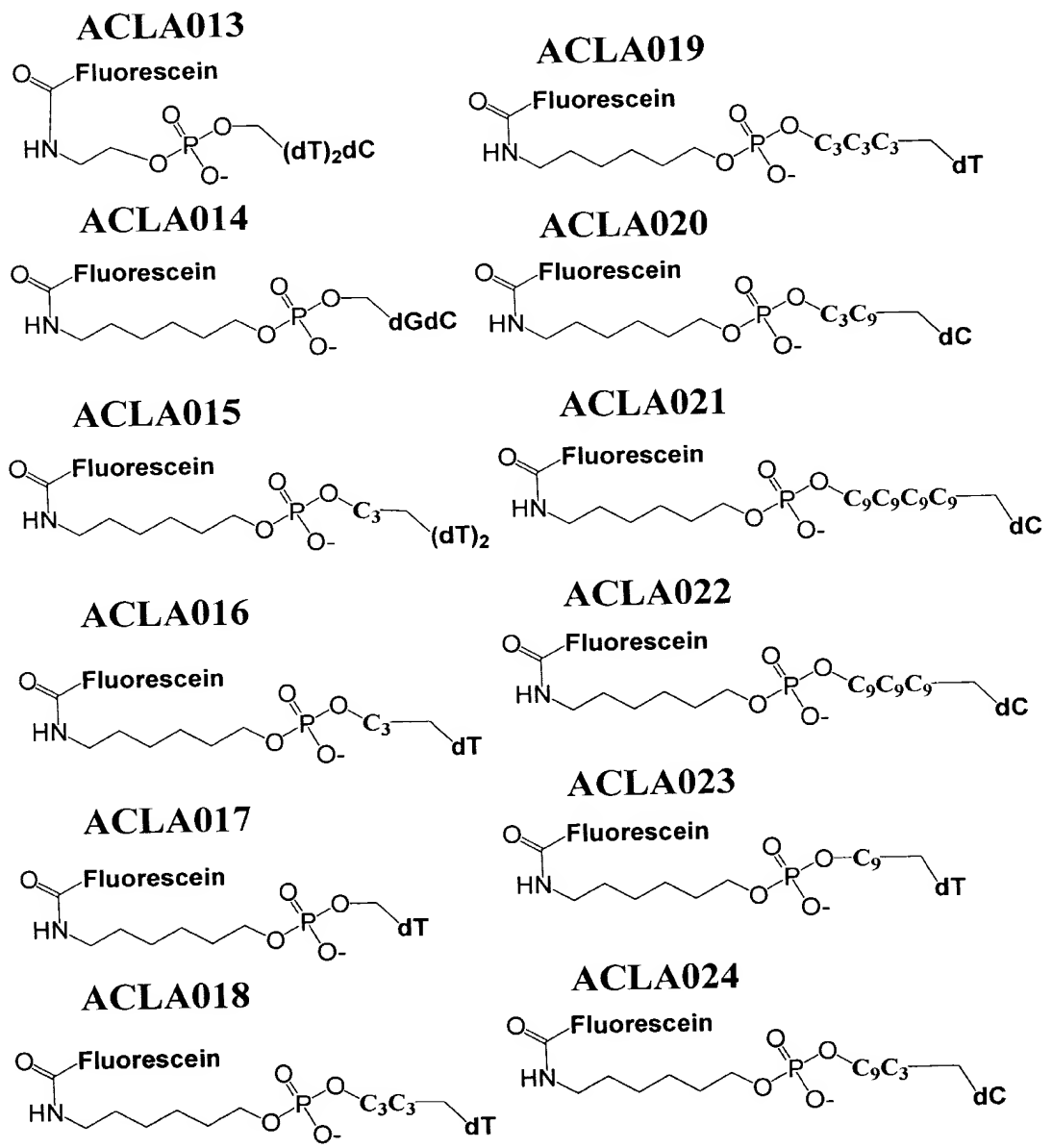


Fig. 17B

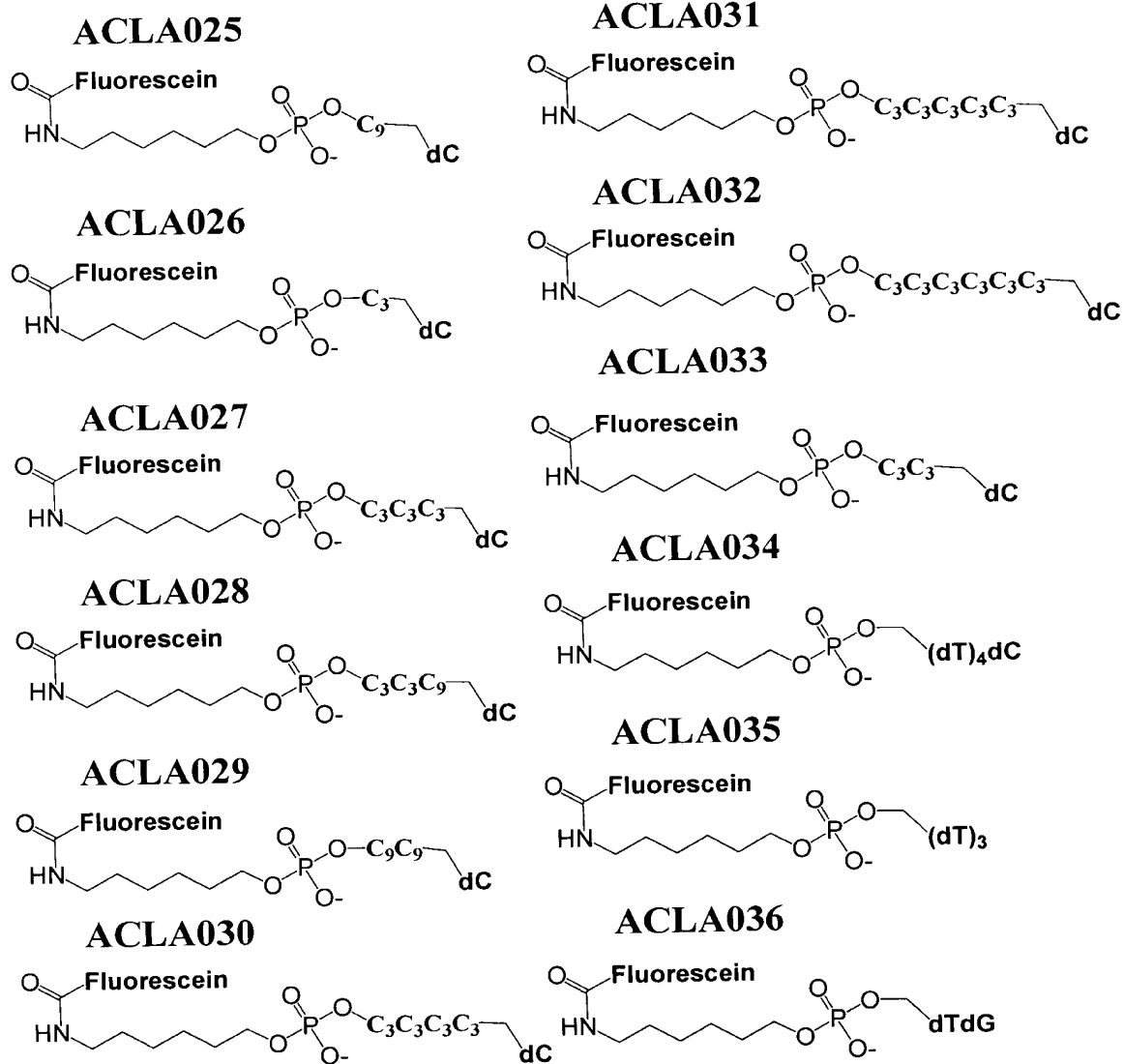


Fig. 17C

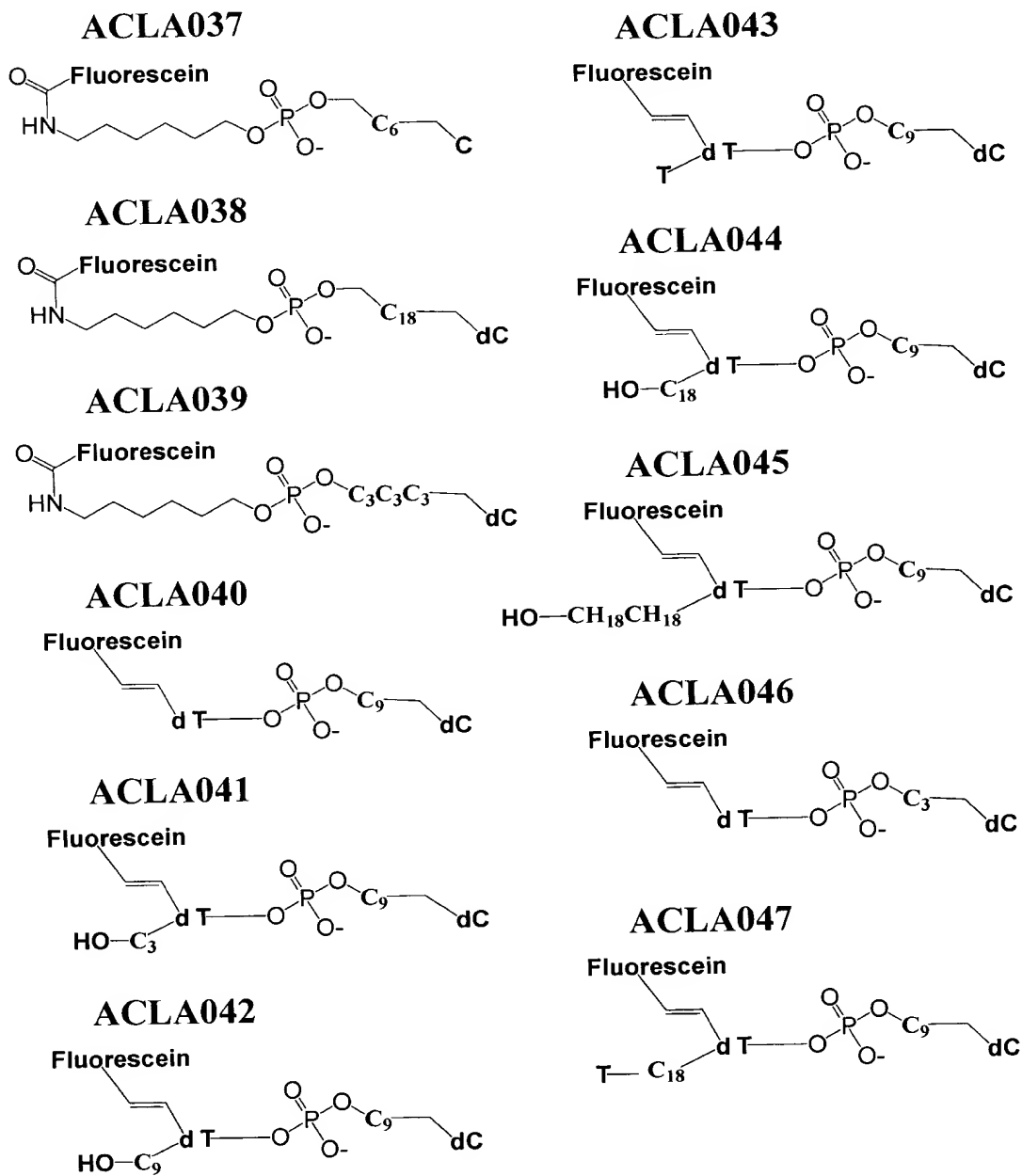
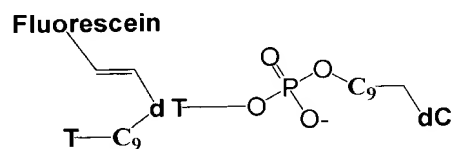
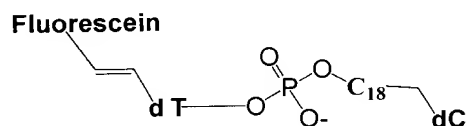


Fig. 17D

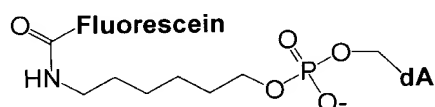
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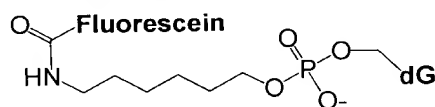
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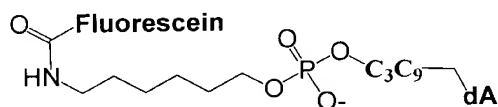
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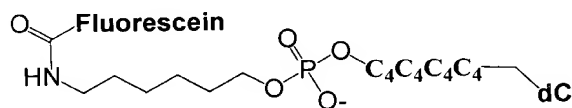
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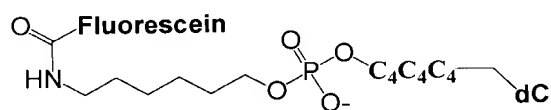
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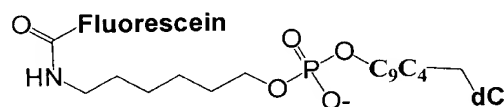
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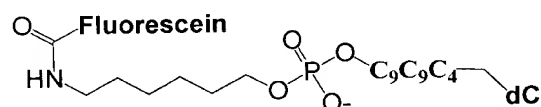
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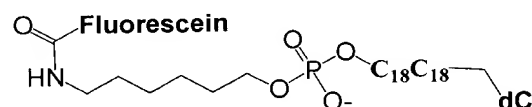
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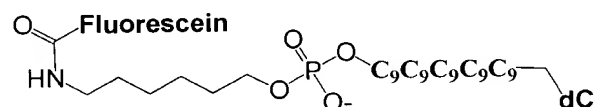
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ACLA057



ACLA058



ACLA059

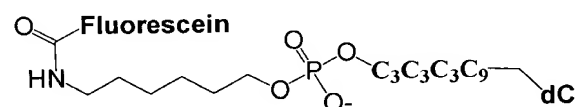
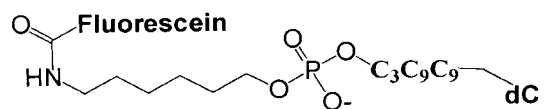
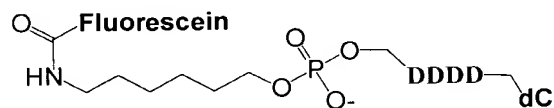


Fig. 17E

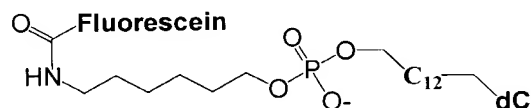
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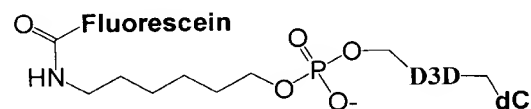
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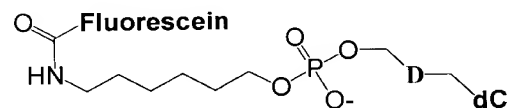
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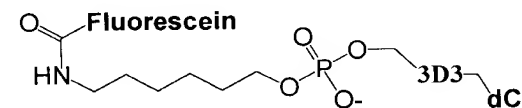
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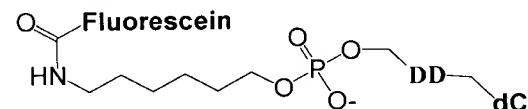
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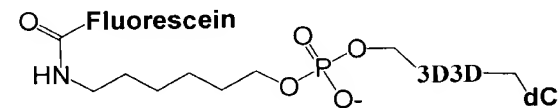
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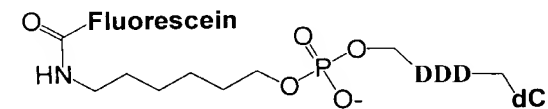
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ACLA068



ACLA064



ACLA069

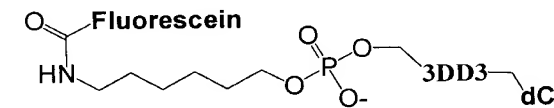


Fig. 17F

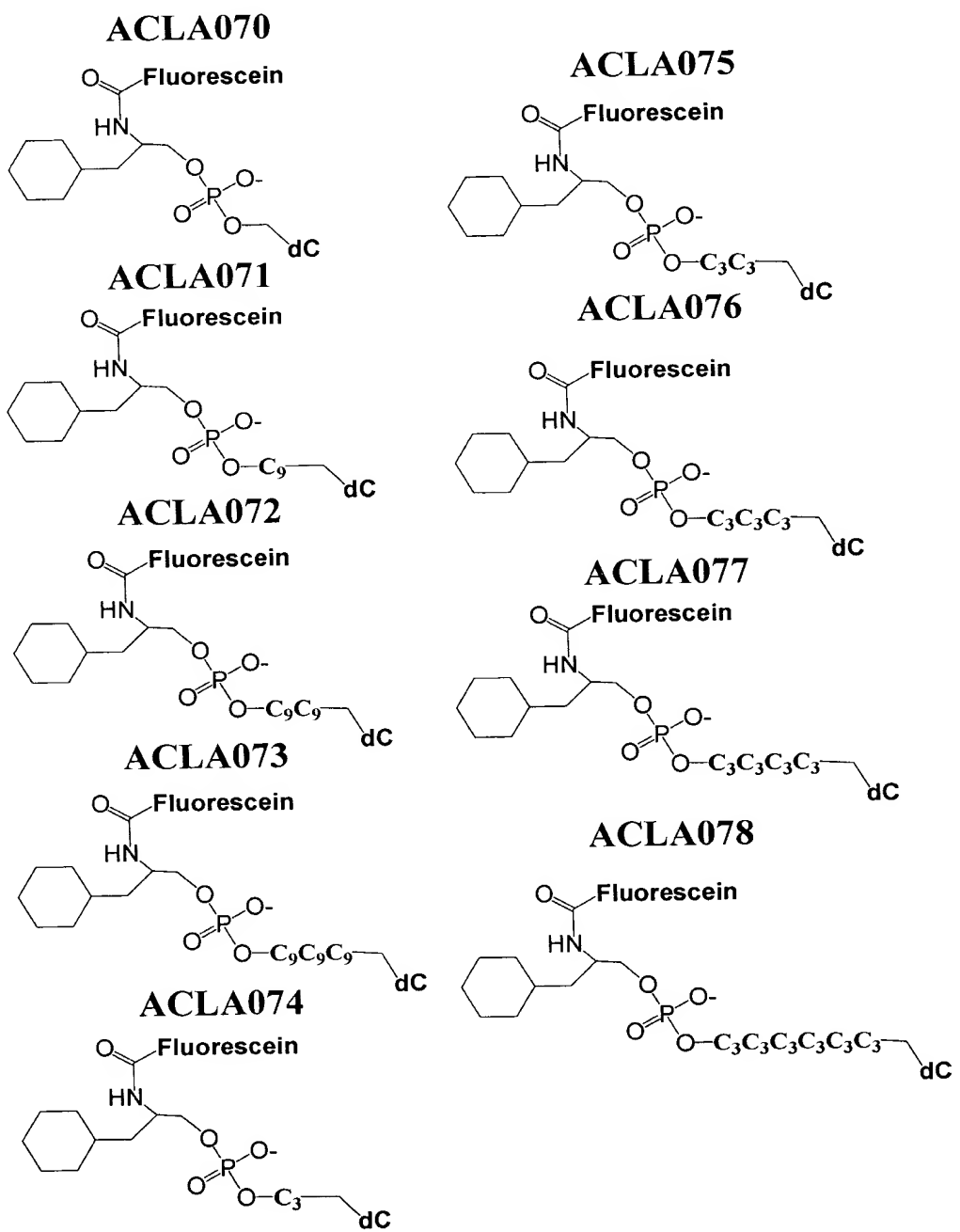
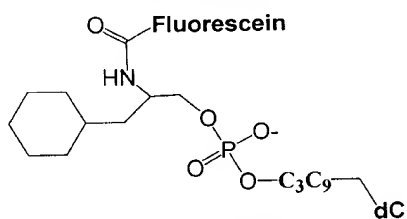
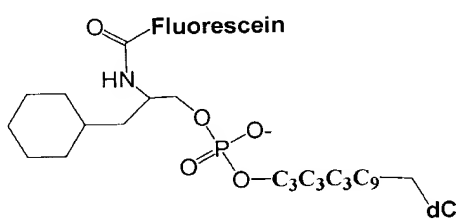


Fig. 17G

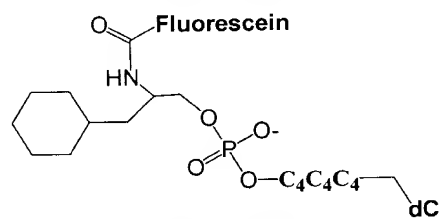
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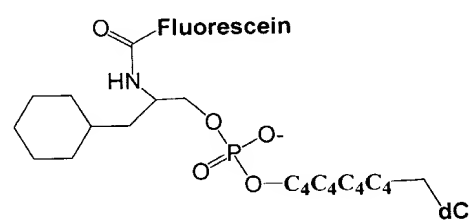
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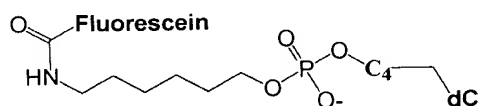
ACLA081



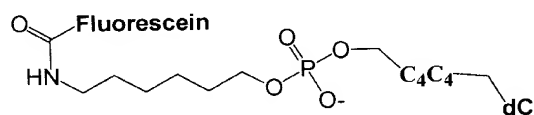
ACLA082



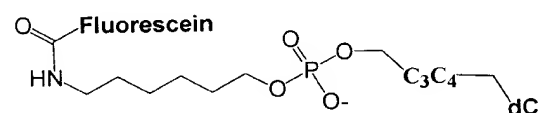
ACLA083



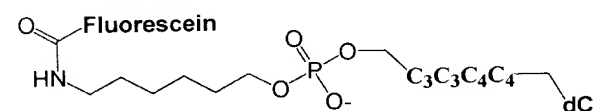
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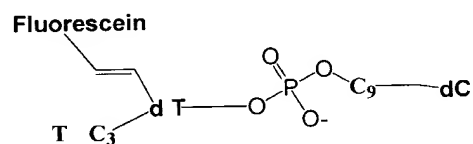
ACLA085



ACLA086



ACLA087



ACLA088

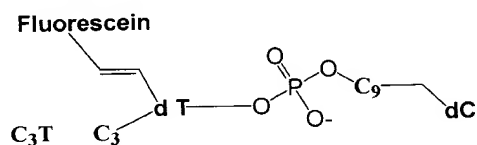
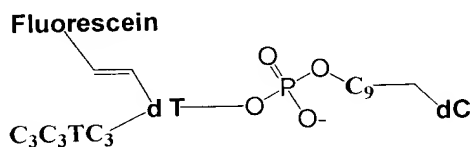
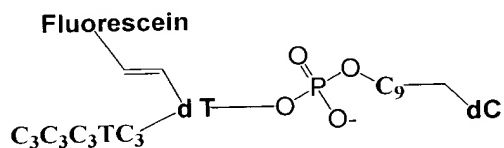


Fig. 17H

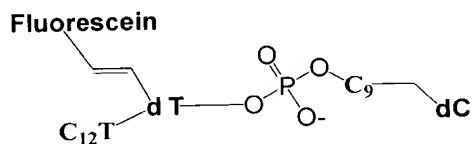
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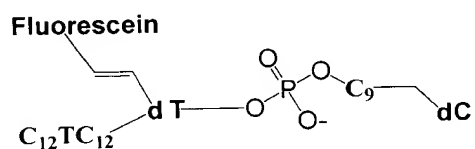
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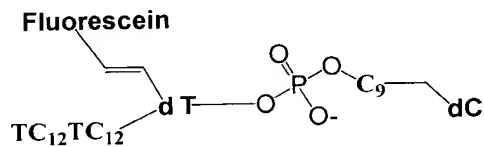
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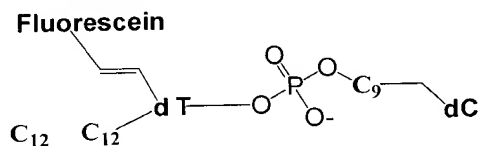
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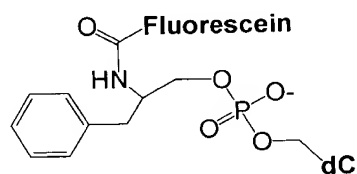
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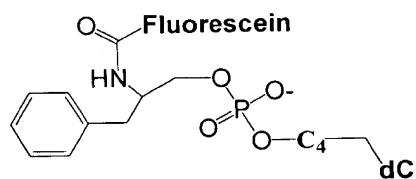
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ACLA095



ACLA096



ACLA097

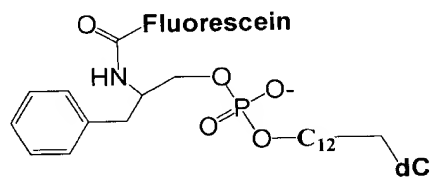


Fig. 17I

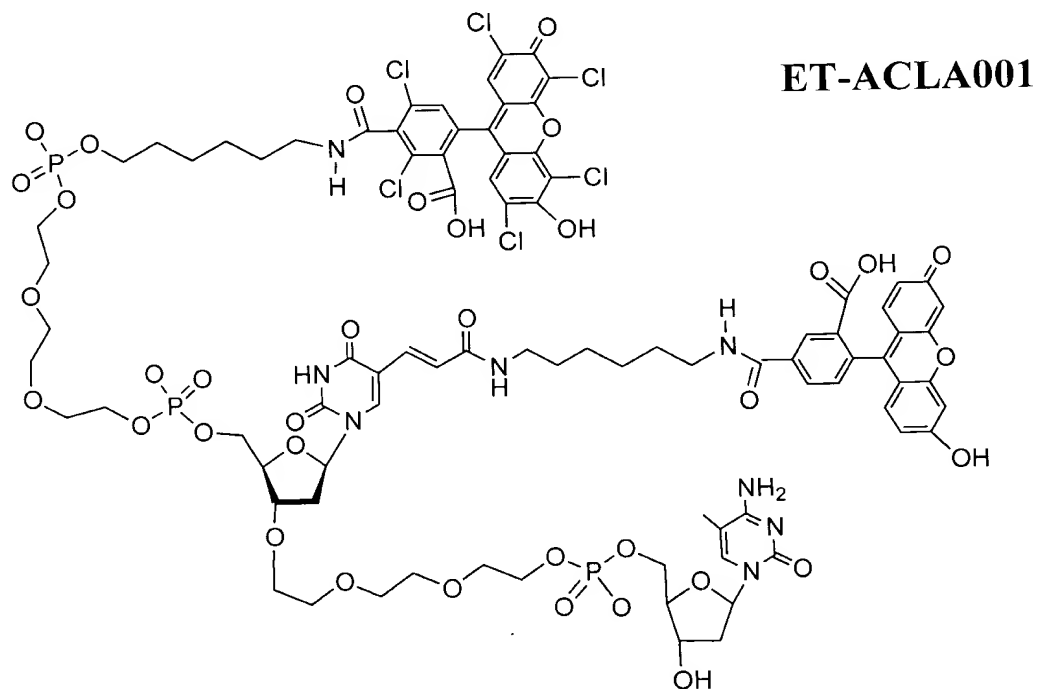


Fig. 17J

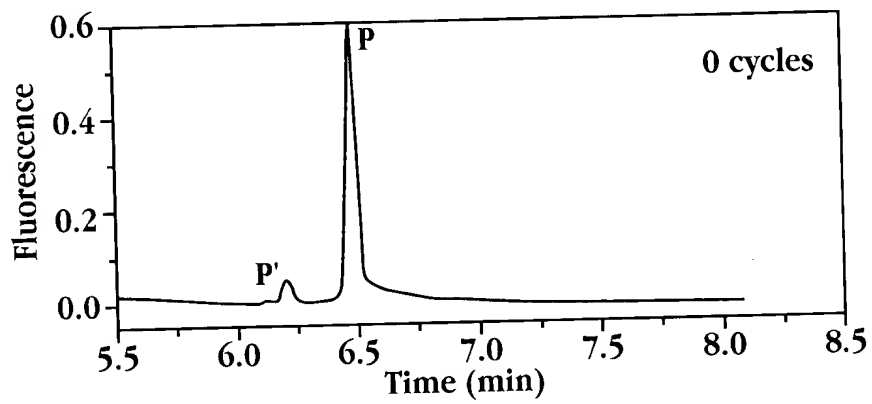


Fig. 18A

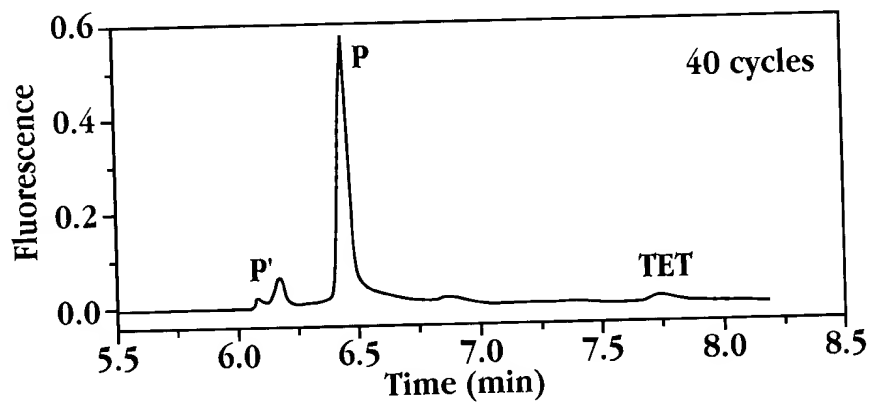


Fig. 18B

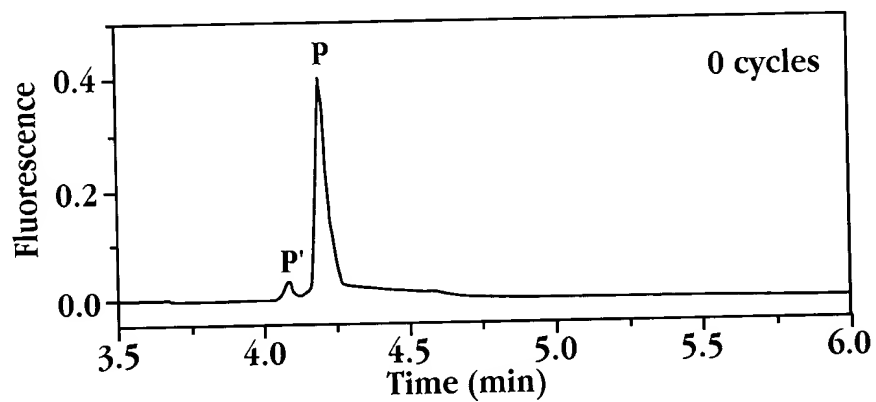


Fig. 19A

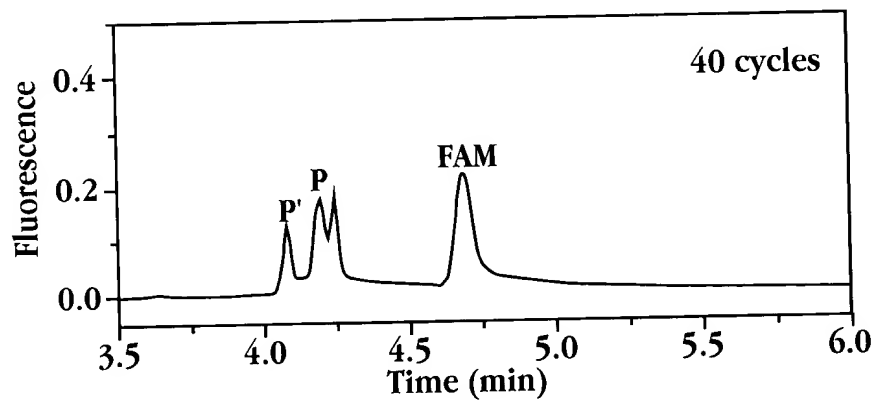


Fig. 19B

APPENDIX	FIG.
CLASS	SUBCLASS
DRAFTSMAN	

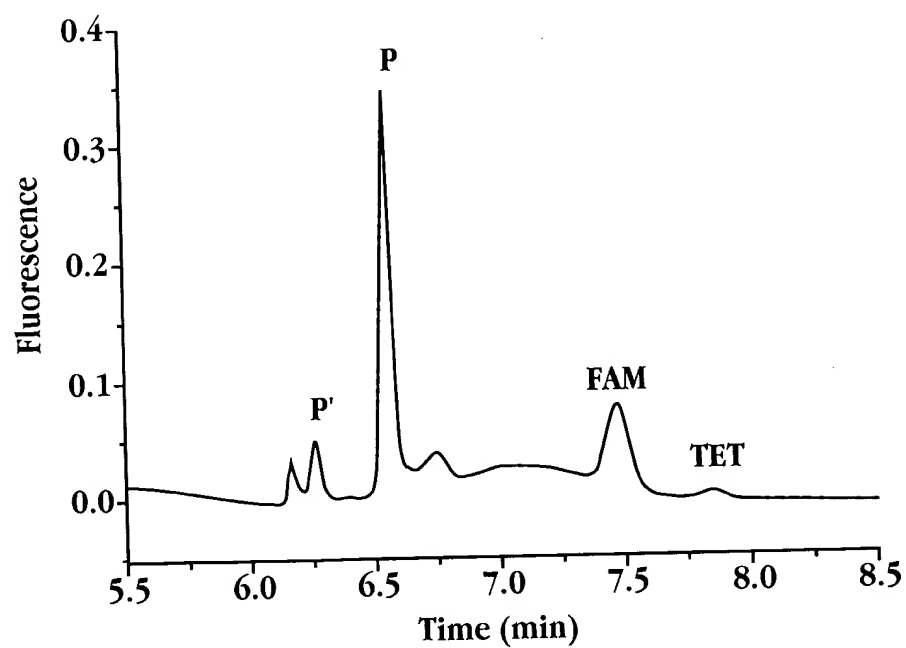


Fig. 20

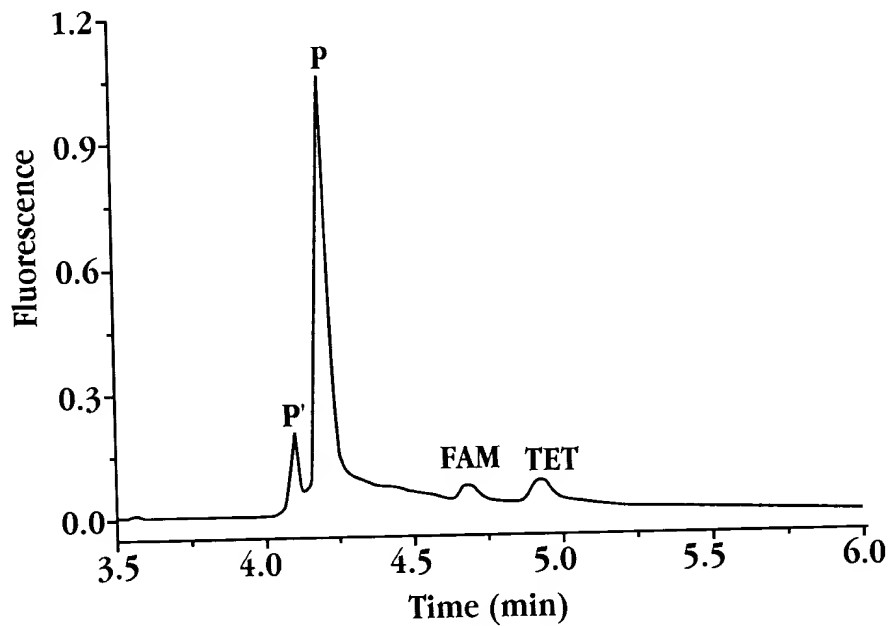


Fig. 21

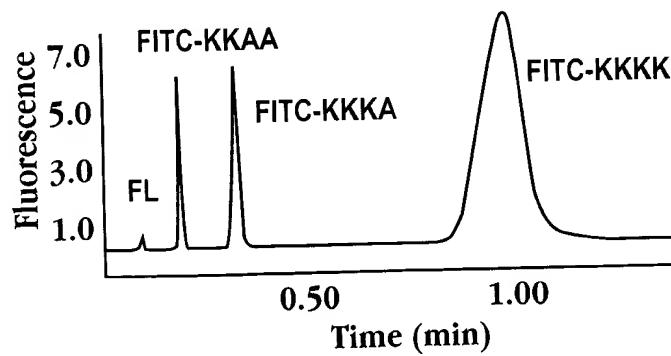


Fig. 22

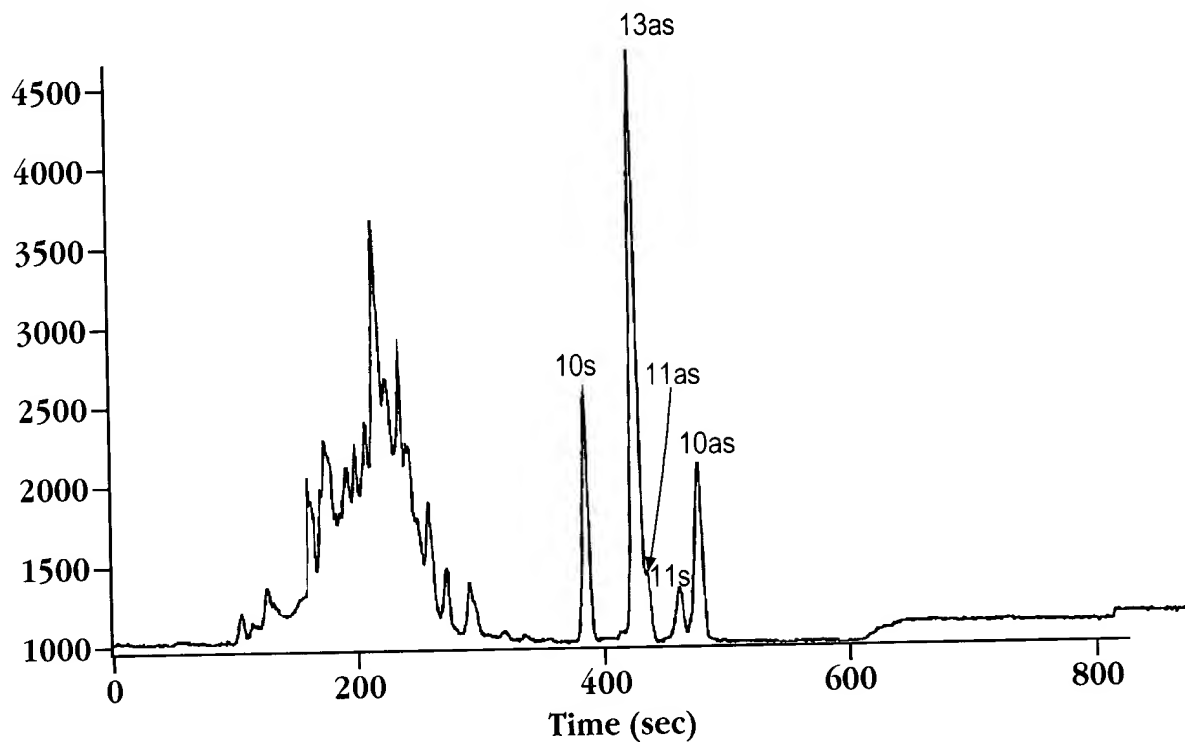


Fig. 23A

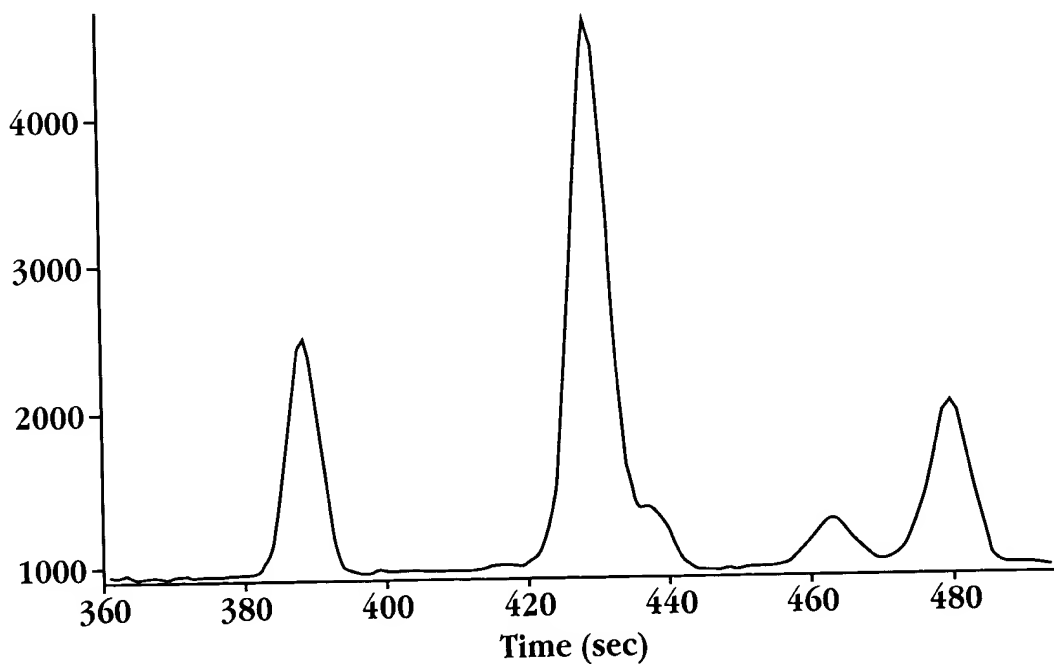


Fig. 23B

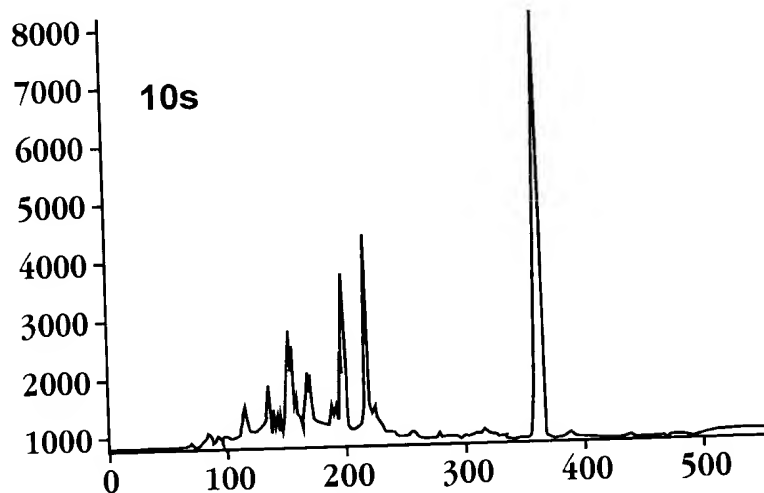


Fig. 23C

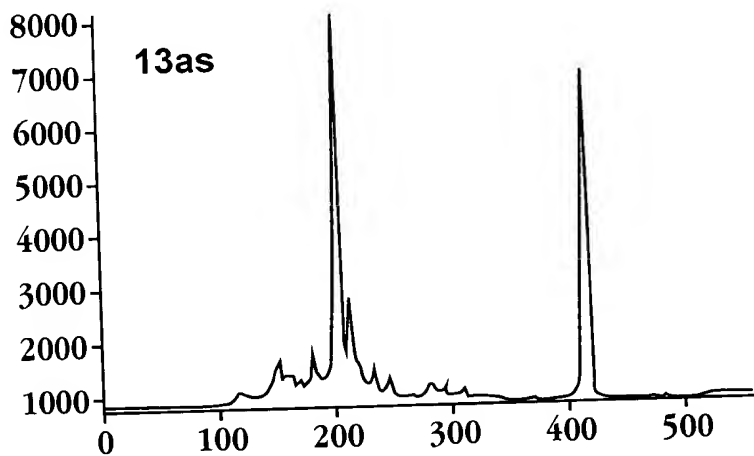


Fig. 23D

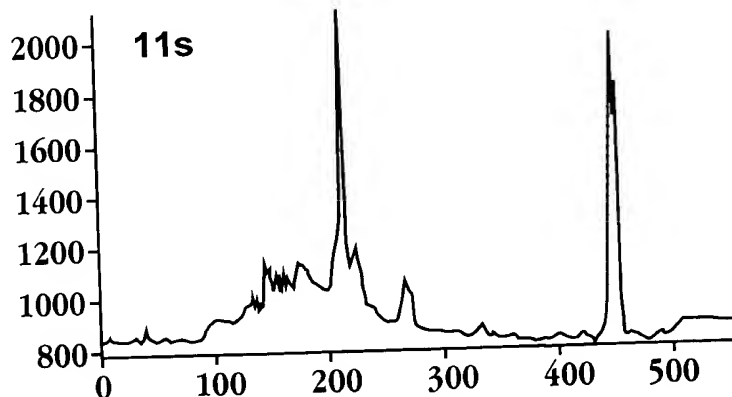


Fig. 23E



Fig. 23F

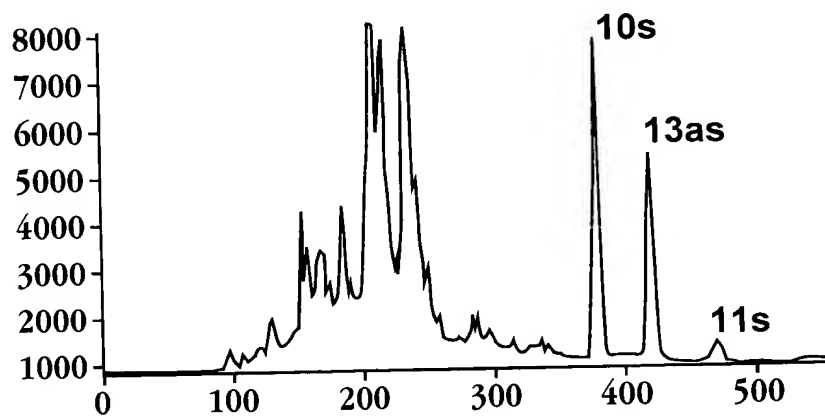


Fig. 23G

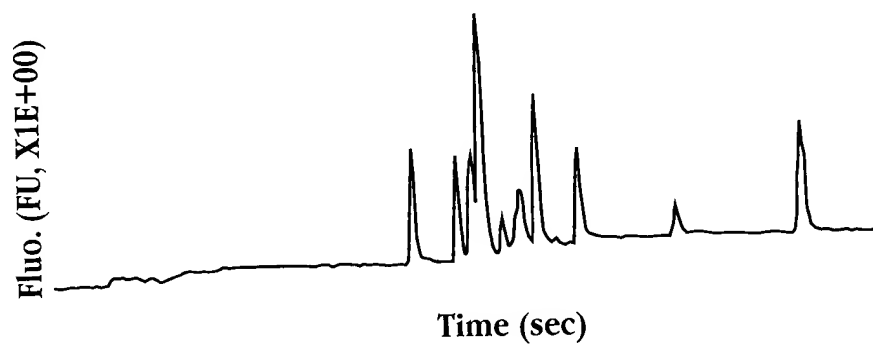


Fig. 24

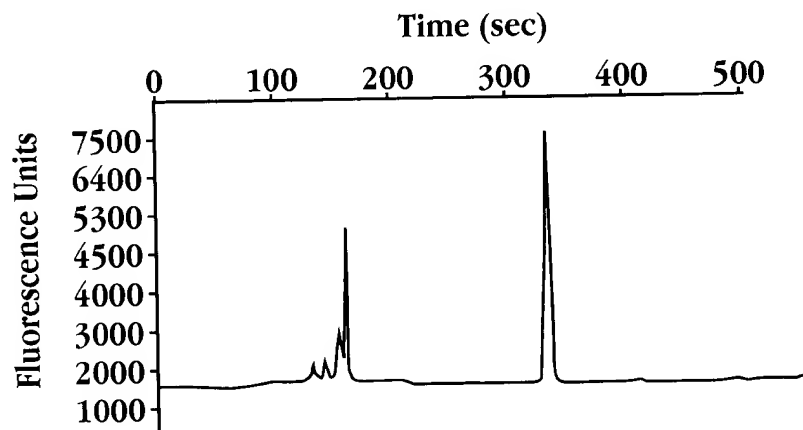


Fig. 25A

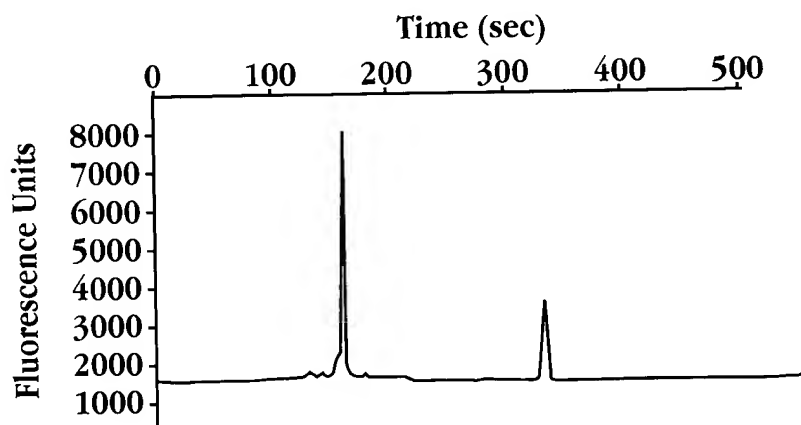


Fig. 25B

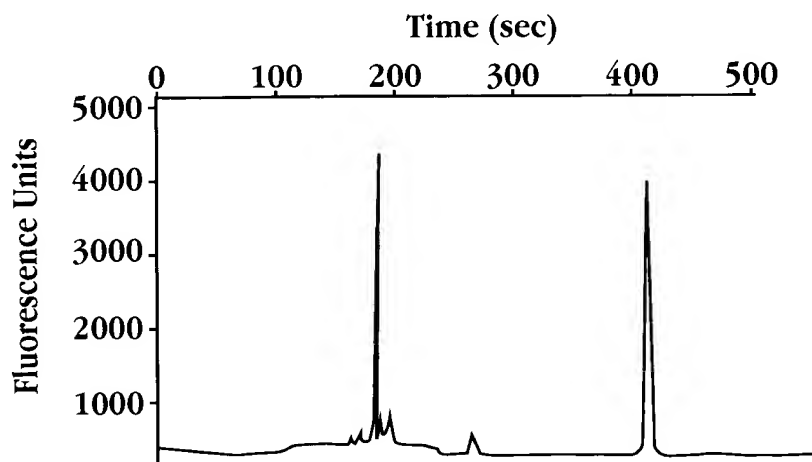


Fig. 25C

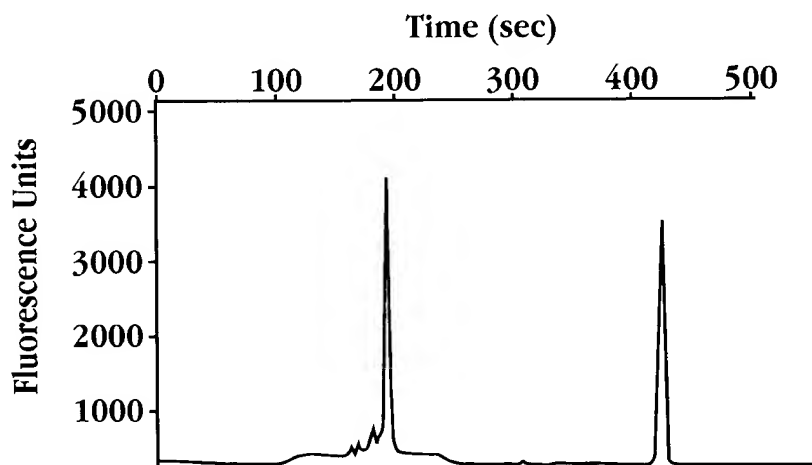


Fig. 25D

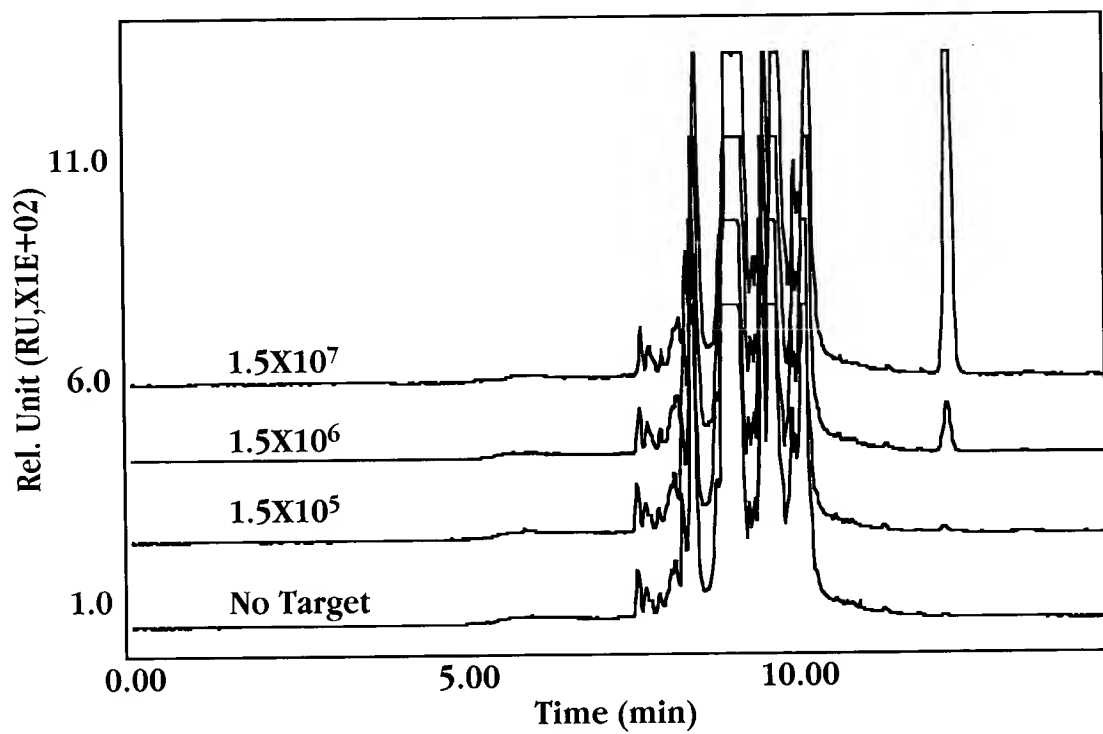


Fig. 26

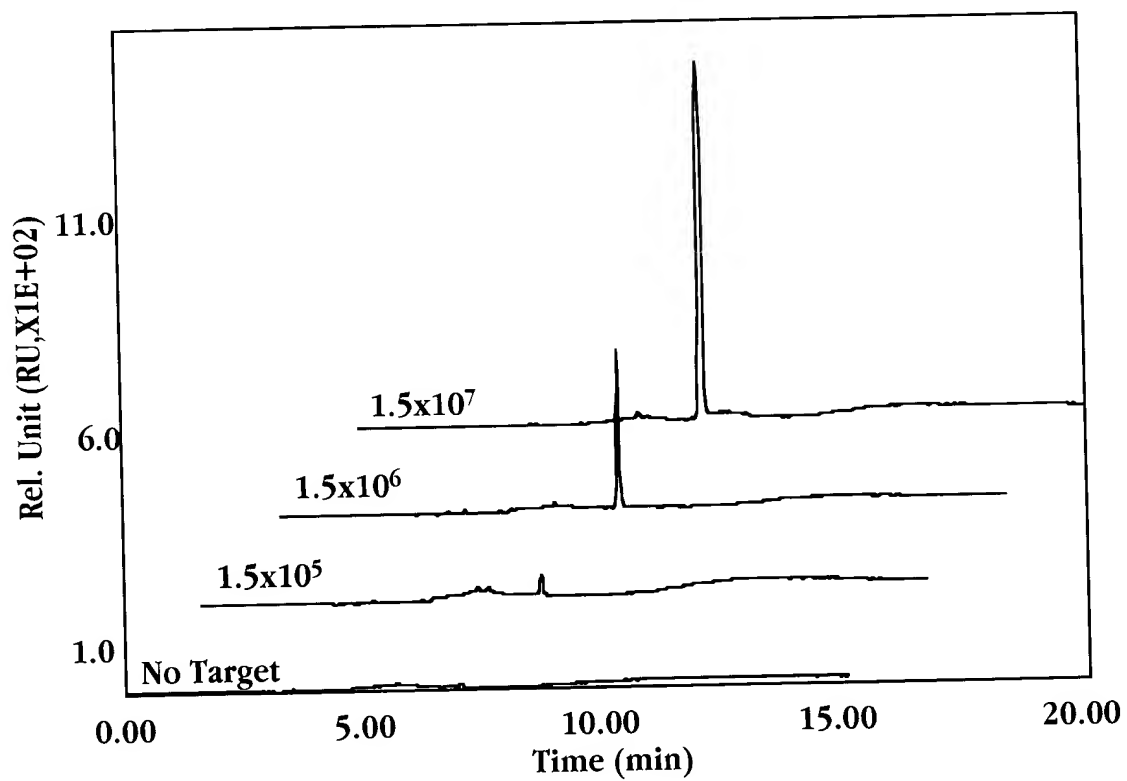


Fig. 27

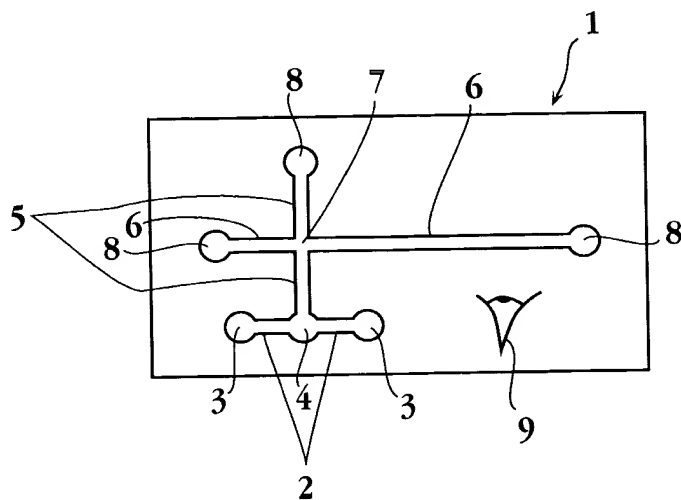


Fig. 28A

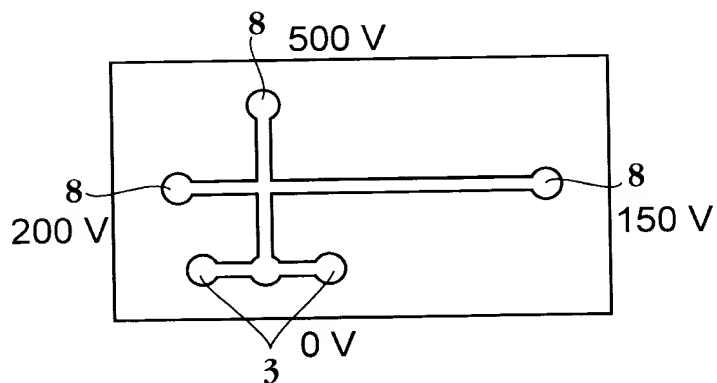


Fig. 28B

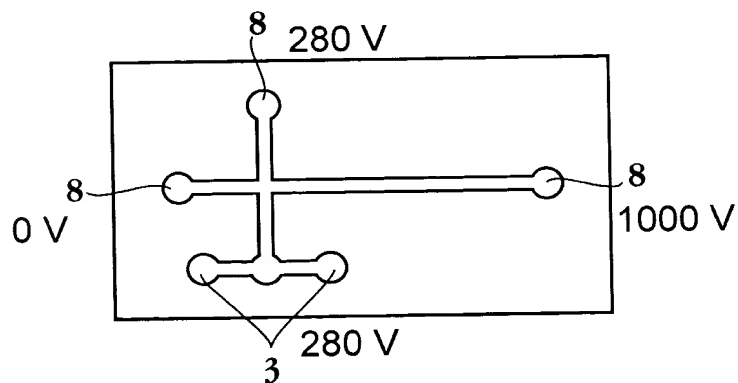


Fig. 28C

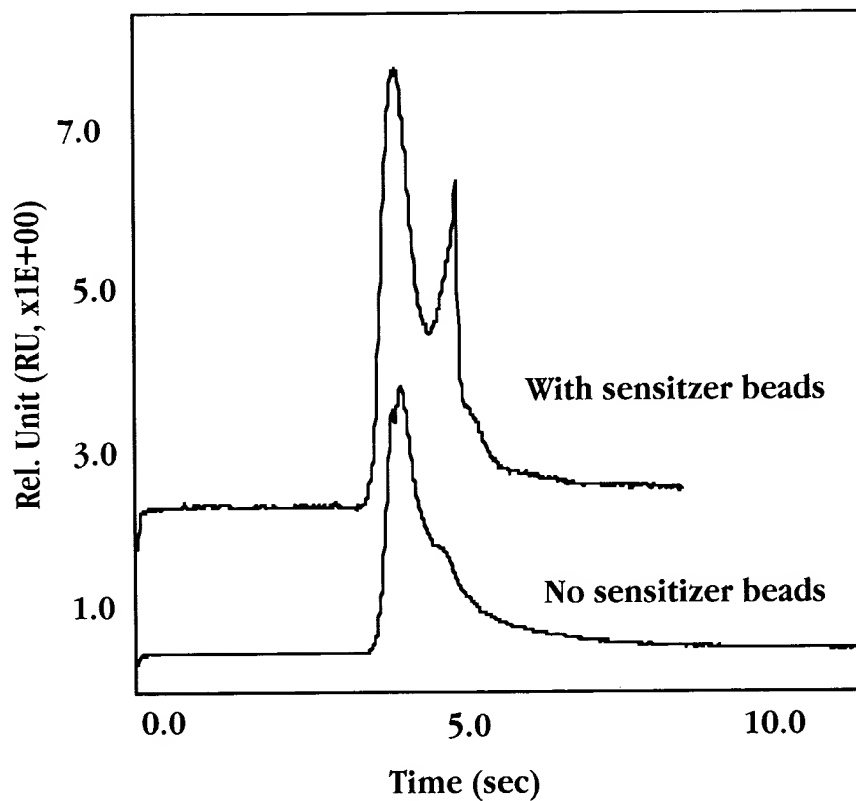


Fig. 29

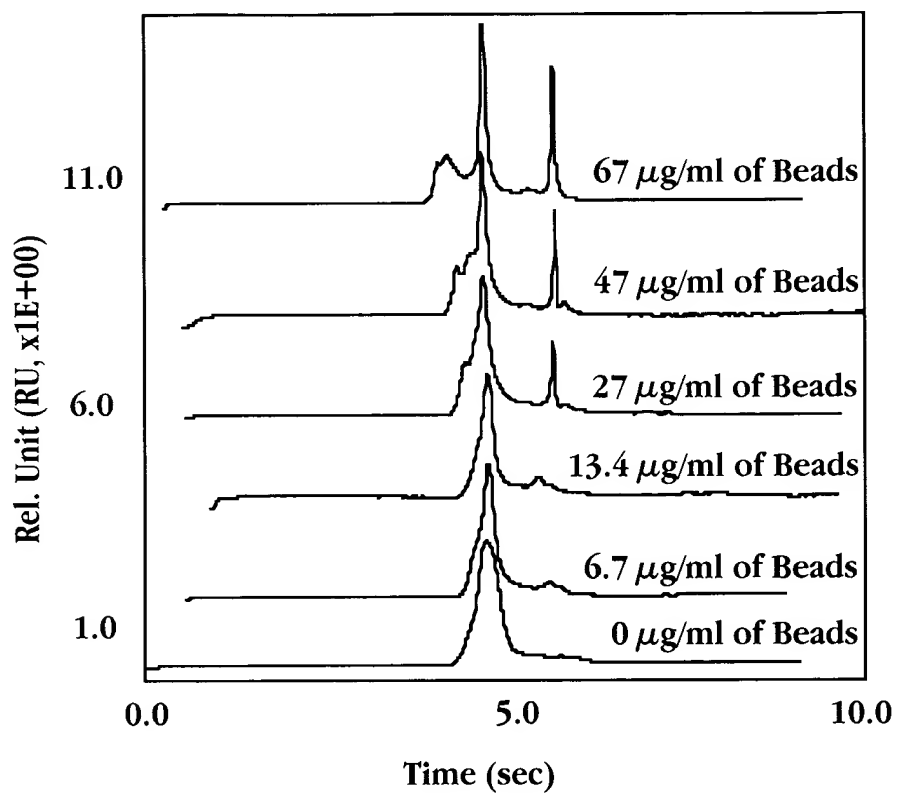


Fig. 30

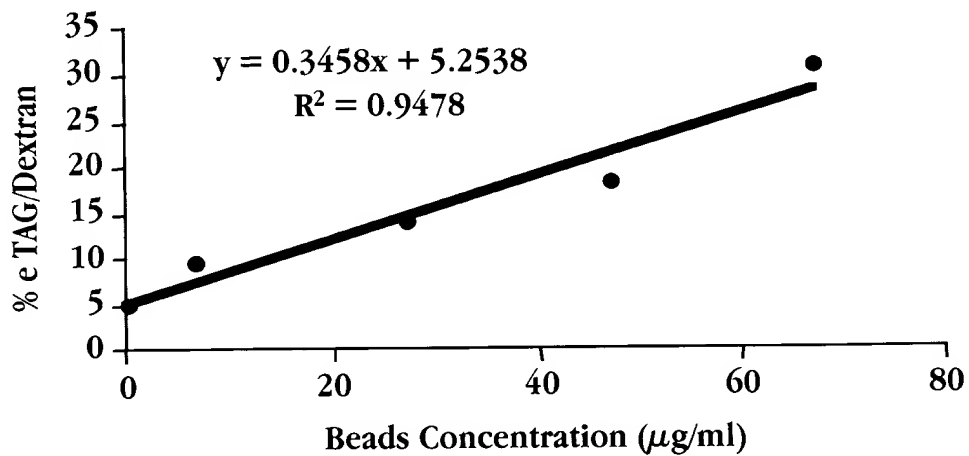


Fig. 31

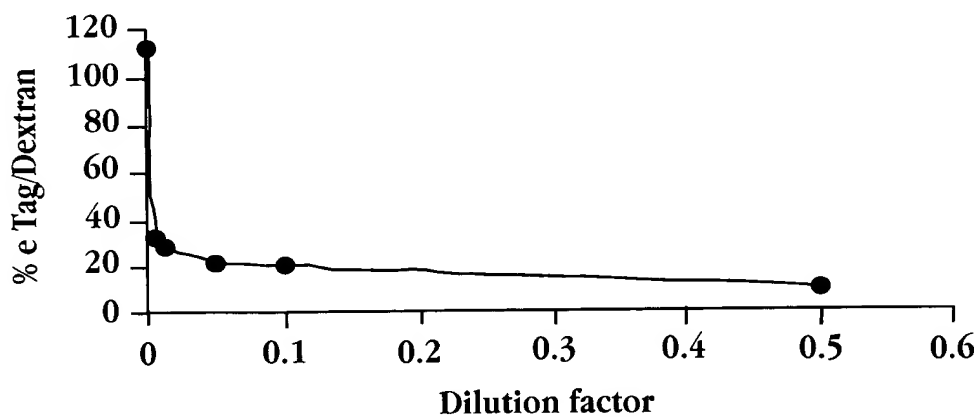


Fig. 32

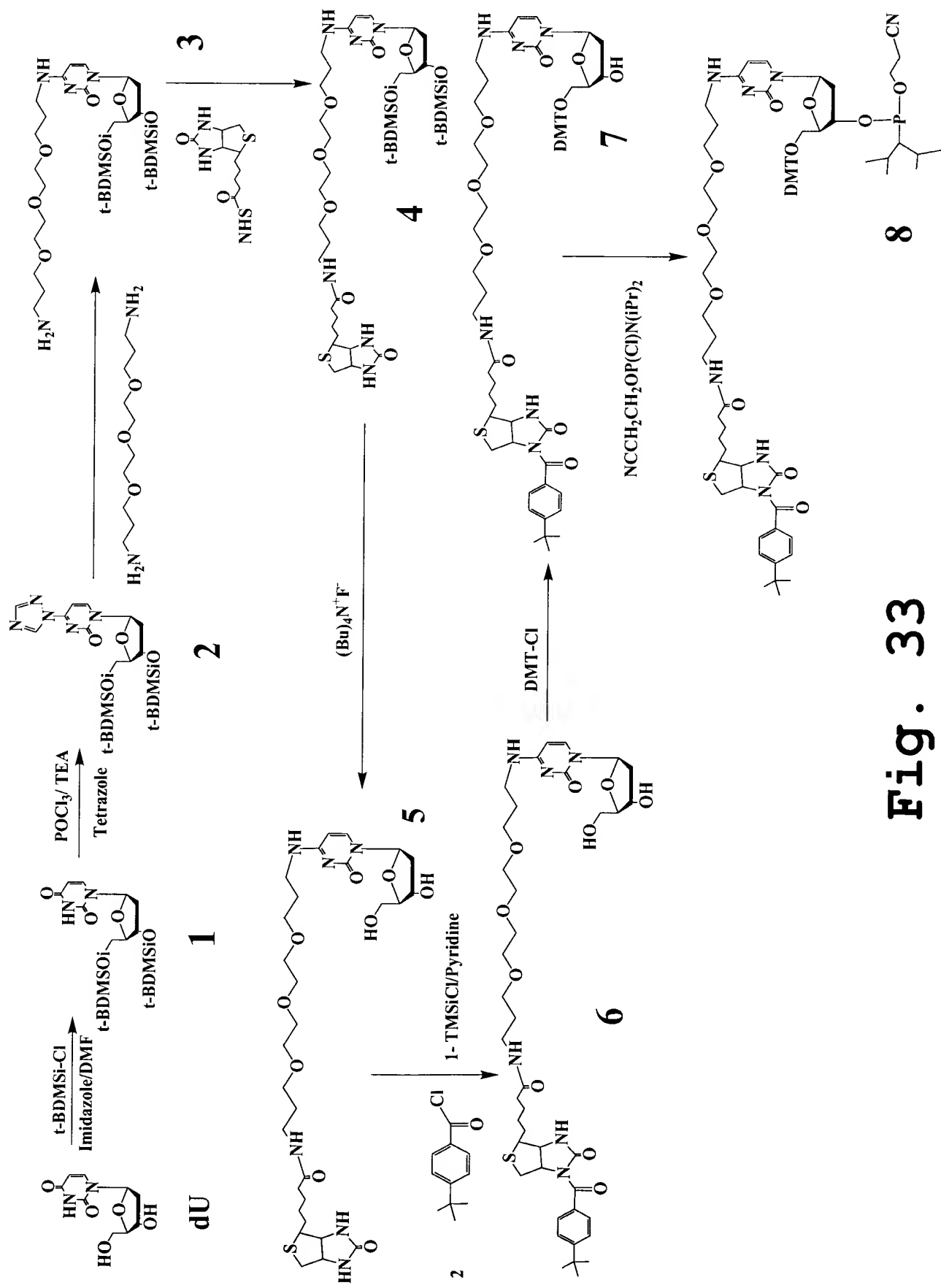


Fig. 33



Fig. 34